

PLASMA TORCH SPECTROMETER

Abstract of the Disclosure

A spectrometer is disclosed which comprises a plasma torch and an induction coil for generating a normal plasma within the torch. The torch has an outer tube and an inner tube. If the plasma collapses from a normal plasma state to a toroidal or faulty plasma shape, a photodiode detects the change in shape so that the plasma torch can be shut down to prevent the plasma shape from melting the tube of the torch.